Comments of the Natural Resources Defense Council (NRDC)
and the Division of Ratepayer Advocates (DRA)
on the Estimates of Incremental Uncommitted Energy Savings
for the California Energy Demand (CED) 2011
Docket Number 11-IEP-1C
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I. Introduction and Summary

The Natural Resources Defense Council (NRDC) and the Division of Ratepayer Advocates (DRA) appreciate the opportunity to comment on the California Energy Commission's (CEC) analysis of incremental uncommitted energy efficiency as applied to *California Energy Demand 2012-2022 Final Forecast* (CED 2011).[1] NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that Californians demand. We focus on representing our nearly 100,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption. DRA is an independent consumer advocacy division within the California Public Utilities Commission (CPUC) that represents the customers of California's investor-owned utilities. DRA's focus is to obtain the lowest possible rates for utility service consistent with safe and reliable service levels and to advocate for customer and environmental protections. Our joint-comments provide recommendations based on the Estimates of Incremental Uncommitted Energy Savings presented at the June 18, 2012 Demand Analysis Working Group meeting.

Our recommendations are summarized as follows:

1. NRDC/DRA recommend that the CEC include the best available estimate for the savings coming from the Big Bold Energy Efficiency Strategies (BBEES) instead of eliminating them entirely.
2. NRDC/DRA recommend that the CEC include the estimate for savings from Emerging Technologies in the Mid Case instead of eliminating them entirely.
3. NRDC/DRA recommend that the CEC provide a written staff report documenting the important work done in incremental analysis.

[1] CEC, *California Energy Demand 2012-2022 Final Forecast*, Staff Final Report, CEC-200-2012-011-SF-VI, (May 2012). [Hereinafter "CED 2011."] Available at: http://www.energy.ca.gov/2012publications/CEC-200-2012-001/CEC-200-2012-001-SF-V1.pdf.

II. Discussion

NRDC greatly appreciates the CEC presentation at the June 18, 2012 Demand Analysis Working Group meeting. The meeting provided valuable information and insight into the methodologies and assumptions used in the incremental analysis. NRDC/DRA commends the CEC for conducting an incremental analysis in such a short timeframe for purposes of coordinating with the CPUC's proceedings. We offer the following recommendations to further improve the results.

1. **NRDC/DRA recommend that the CEC include the best available estimate for the savings coming from the Big Bold Energy Efficiency Strategies (BBEES) instead of eliminating them entirely.**

NRDC/DRA acknowledge that the CPUC/Navigant did not provide the CEC with an estimate of efficiency potential associated with the Big Bold Energy Efficiency Strategies (BBEES) in the final CPUC *Update Energy Efficiency Potential, Goals, and Targets for 2013 and Beyond* (Potential Study).[2] Ideally, the CPUC would have provided an updated estimate of BBEES savings to the CEC. However, the CPUC has not done so due to time constraints. Therefore, we recommend that the CEC include the best available estimate for those savings given the circumstances—not an estimate of zero. The last available estimate of BBEES was conducted by the CEC and published in 2010. The CEC estimated that 2,056 MW of demand savings (and 2,167 GWh of energy savings) would come from the BBEES by 2020.[3] While these CEC estimates are two years old, they were adopted (the low estimate) in the 2010 LTPP proceeding, and were included in utility procurement plans filed this year. These savings, which are already discounted for uncertainty, are the best available estimates for BBEES savings (and categorically more reasonable than an estimate of zero) and should be included in the CEC's incremental analysis.

The CEC should include the best estimate of BBEES savings, after adjusting for years that are already committed. While the CEC originally estimated that 2,056 MW of demand savings in 2020 for BBEES, that estimate includes savings from the years 2013-2014. Years 2013-2014 already have defined programs, goals, and now building

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[2] CPUC/Navigant, *Analysis To Update Energy Efficiency Potential, Goals, and Targets for 2013 and Beyond* (March 2012). Available at: http://www.cpuc.ca.gov/NR/rdonlyres/5A1B455F-CC46-4B8D-A1AF-34FAAF93095A/0/2011IOUServiceTerritoryEEPotentialStudyFinalReport.pdf

[3] CEC, *Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast Attachment A: Technical Report, Consultant Report*, Table ES-4: Summary of Incremental Uncommitted Peak Demand Savings (MW) across All Goals Cases, p. viii (January 2010).

efficiency standards. Therefore, BBEES savings from years 2013-2014 should be removed from all cases. Only counting years 2015-2020 yields 1,698 MW of demand savings (and 1,770 GWh of energy savings) in the Mid Case, and 1,149 MW (and 1,313 GWh) in the Low Case.[4] We propose using the old Mid Case estimate in the current High Case, to be extra conservative. We propose using the CEC's old Low Case estimate for the current Mid Case estimate, consistent with the 2010 LTPP. For the current Low Case estimate, we do not propose an estimate of zero BBEES savings, which is unreasonable. We defer to the Commission to apply some adjustment factor to the old Low Case savings in order to get a reasonable current Low case estimate. In sum, we recommend including:

- 1,698 MW of demand savings in the High Case,
- 1,149 MW of demand savings in the Mid Case, and
- A reasonable adjustment factor applied to 1,149 MW for the Low Case.

The certainty associated with the BBEES savings is commensurate with the amount of certainty associated with most other factors in the demand forecast. The BBEES are one of the pillars of the CPUC's Strategic Plan and are being relied upon to meet our climate goals. The CPUC has every intention of pursuing an aggressive energy efficiency strategy going forward. Therefore, the CEC should use the best estimate available to determine the savings that will come from these strategies. While there may not be programs or delivery mechanisms yet defined BBEES, the equivalent is true for most other factors in the forecast—and those factors get included in the forecast. E.g., projections of increased building stock drives growth in energy demand, despite the fact that there are no blueprints for most of those buildings, no permits acquired, and no financing secured. However, because the general direction is towards increased economic activity, the demand from those not-yet-existing buildings are included in the forecast. Similarly, the savings from the not-yet-existing BBEES should be included in the forecast, and in this incremental analysis, because the general direction of the CPUC is to pursue the BBEES. Because the certainty associated with the BBEES is commensurate with the rest of the factors in the demand forecast, the CEC should include the best available estimate in this incremental analysis.

Including the BBEES at this stage is critical, as the CPUC has indicated in its Long Term Procurement Planning proceeding (LTPP) that it plans to only take estimates that

[4] *Id.*

come from the CEC's analysis here.[5] BBEES composed about 40% of the demand savings in the CEC's first incremental analysis.[6] The BBEES are a central pillar of the CPUC's Strategic Plan. It is essential that the CEC include the best available estimate of BBEES savings in the incremental analysis.

2. NRDC/DRA urge that the CEC include the estimate for savings from Emerging Technologies in the Mid Case instead of eliminating them entirely.

We urge the CEC to include savings from Emerging Technologies in the mid case of the incremental analysis. The CPUC/Navigant did supply the CEC with estimates of savings from emerging technologies. The CEC is charged with determining the amount of savings that is incremental to the CEC base forecast—not determining whether to include or exclude entire categories of the CPUC/Navigant potential study results. While the CEC does include the savings from Emerging Technologies in the High Case, it is omitted from the mid case. This omission is problematic because it suggests that the plain, unadjusted, incremental amount of savings form CPUC Potential study is lower than it actually is. The CEC's mid case includes savings from all other categories included in the Potential Study. Therefore, it should do the same for Emerging Technologies. Furthermore, removing Emerging Technologies altogether from the mid case creates no distinction between Emerging Technologies in the CEC's low- and mid-cases. The CEC achieves a spread of savings across low-, mid-, and high-cases by applying a negative 5% adjustment, 0% adjustment, and 15% adjustment to savings for most other categories of savings. We recommend the same 0% adjustment for Emerging Technologies in the Mid Case.

Emerging technologies are a critical portion of the incremental uncommitted energy efficiency, as seen in Figure 6 below. The commercial emerging technologies wedge is the light grey color, which expands continuously through 2022.

[5] "As part of the incremental uncommitted forecast, the Energy Commission is expected to conduct low, middle, and high analyses. Those values will serve as the low, middle, and high values for incremental energy efficiency in the 2012 LTPP. . . . Parties will be given an opportunity in this proceeding to provide comment on incremental energy efficiency once the Energy Commission has released the results of its analysis. These comments will not be on the values from the Energy Commission's analysis but instead will focus on what combinations of values within that analysis are appropriate for each range in the LTPP." CPUC, *Assigned Commissioner's Ruling On Standardized Planning Assumptions*, R.12-03-014, Attachment: Planning Assumptions for use in R.12-03-014, p.12 (June 27, 2012).

[6] BBEES composed 2,056 MW out of a total of 5,352 MW in the mid case.

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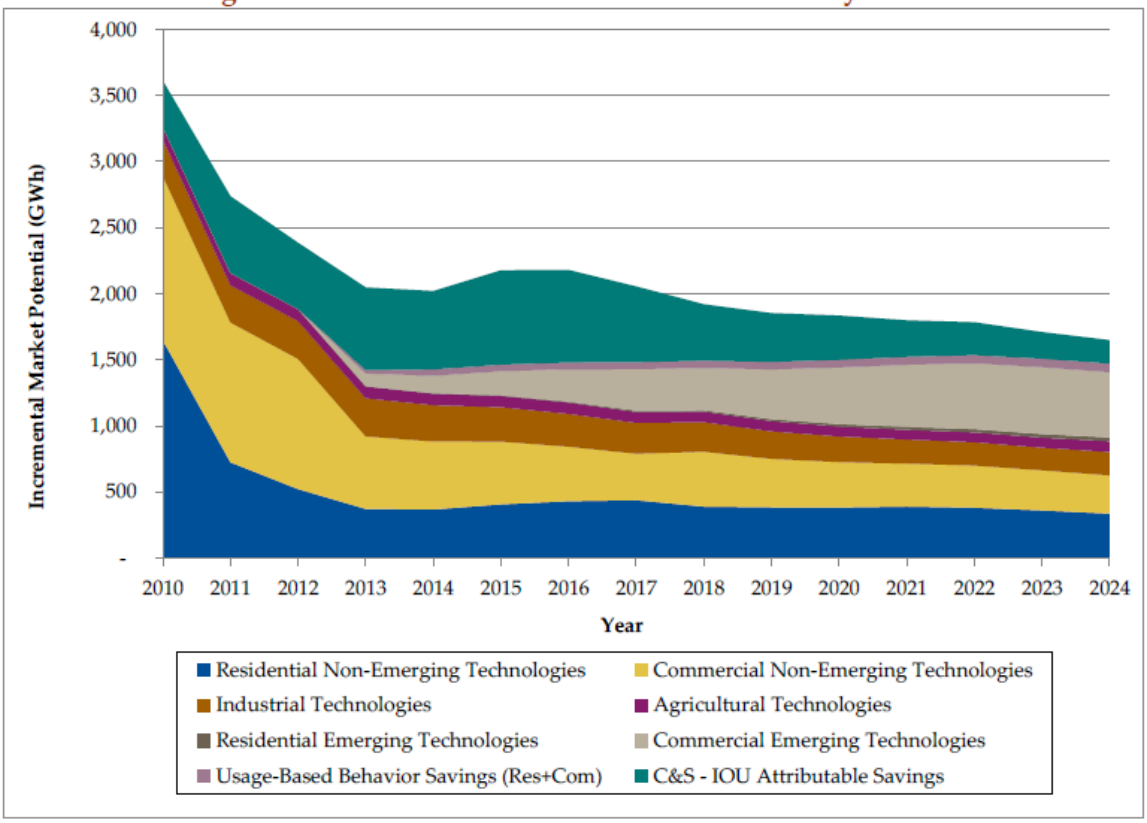
Figure 6. Incremental Annual Market Potential by Sector



The CPUC itself has stated in its Final Potential Study: "Emerging technologies represent a key source of new technical potential."[8] Furthermore, the evidence suggests that the CPUC/Navigant's estimate of savings from emerging technologies is conservative. They only included 23 out 800 emerging technologies. Of all the excluded emerging technologies, 67 of those technologies were assessed to be "high potential" technologies. In sum, the CPUC stated that there will certainly be more savings from emerging technologies than what is currently estimated.[9] Therefore, the CEC should include the incremental amount of energy savings from Emerging Technologies in the Mid Case.

[7] CPUC/Navigant, *Analysis To Update Energy Efficiency Potential, Goals, and Targets for 2013 and Beyond,* p.11 (March 2012).
[8] *Id* at 9.
[9] "Additional emerging technologies in all sectors will certainly become viable over the study time line and will be an important topic in future updates." CPUC/Navigant, *Analysis To Update Energy Efficiency Potential, Goals, and Targets for 2013 and Beyond,* p.10 (March 2012).

3. **NRDC/DRA recommend that the CEC provide a written staff report documenting the important work done in incremental analysis.**

NRDC/DRA recommend that the CEC provide a written staff report documenting the important work done in incremental analysis. The incremental amount of uncommitted energy efficiency is a significant factor that affects the CEC's base demand forecast as well as procurement of resources at the CPUC. For example, the CEC's previous analysis of incremental uncommitted energy efficiency was published in a set of two reports totaling over 200 pages.[10] These reports were extremely helpful in providing information about the assumptions, methodologies, and calculations used to determine the final amount of savings. These savings estimates went on to significantly affected resource procurement at the CPUC, eliminating over 5,500 MW of procurement need in the final 2010 LTPP planning assumptions (avoiding the need for 11 large 500 MW power plants). In sum, we recommend that the CEC document their important work in a written report because these assumptions will be used in subsequent proceedings, with critical consequences.

IV. Conclusion

NRDC/DRA appreciate the opportunity to comment on the Estimates of Incremental Uncommitted Energy Savings as applied to the California Energy Demand 2011. We commend the staff for accomplishing these estimates on such a short timeline and note that the ultimate results will have critical impacts in future proceedings. Thank you for considering our recommendations.

[10] CEC, *Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecas*t (May 2010). Available at: http://www.energy.ca.gov/2010publications/CEC-200-2010-001/CEC-200-2010-001-CTF.PDF. CEC, *Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast Attachment A: Technical Report, Consultant Report* (January 2010). Available at: http://www.energy.ca.gov/2010publications/CEC-200-2010-001/CEC-200-2010-001-ATA.PDF